

04/19/00
jc796 U.S. PTO

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application for Patent of: Michael Cobb
Docket No. 5182

jc675 U.S. PTO
09/552015
04/19/00

Serial or Patent No.:

Filed or Issued: HEREWITH

For: Motorized Bicycle

**VERIFIED STATEMENT CLAIMING SMALL ENTITY STATUS
INDEPENDENT INVENTOR**

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR 1.9(c) for purposes of paying reduced fees to the Patent and Trademark Office with regard to the invention entitled as described in:

- ☒ the specification filed herewith.
☐ application serial no. filed
☐ patent no. issued

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- ☒ no such person, concern, or organization
☐ persons, concerns or organizations listed below*

*NOTE: *Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27).*

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name of inventor 1: Michael Cobb

Michael B Cobb

Signature of Inventor

Date: 4-18-2000

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DATE 4/19/00 LABEL NO. 62882031715us

SERVICE.

R. Garcia

INVENTOR: MICHAEL COBB

CROSS REFERENCES AND RELATED SUBJECT MATTER

This application relates to subject matter contained in provisional patent application serial number 60/130,393, filed in the United States Patent Office on April 19, 1999.

BACKGROUND OF THE INVENTION

The invention relates to a motor bike. More particularly, the invention relates to a belt driven bicycle which derives power from a horizontal shaft lawn-mower engine.

Bicycling is an activity preferred by many people for several reasons. First, bicycling is an enjoyable pastime. The thrill of moving along in the open air attracts numerous people to bike riding. Second, bicycling is great exercise.

The degree of exercise is determined by the distance traveled, and the type of terrain traveled. Third, bicycling is environmentally friendly transportation. Bicycling causes no toxic by-products, other than the carbon dioxide expelled from the bicyclist's lungs.

However, bicycling is limited by the stamina of the rider. Once the bicyclist becomes tired, cycling can become an unpleasant task. Further, a rider is often deterred from attempting to ride in hilly terrain, for fear that he might become tired and be forced to complete the ride even beyond the point of exhaustion.

Several variations on the basic bicycle concept have been developed over the years, in an effort to retaining some of the benefits of bicycle riding, while eliminating the drawbacks. In particular, motorcycles, mopeds, and motor scooters have been developed.

Motorcycles give the rider the thrill of outdoor riding, while eliminating the necessity to pedal. Thus, the rider can tackle hilly terrain, and travel along highways, keeping up with traffic. When compared with cars, motorcycles produce considerably less pollution. However, motorcycles require a large engine in order to be capable of maintaining highway speeds. Pedals are not provided on motorcycles, because they are much too heavy to pedal. Thus, riding a motorcycle provides little or no exercise to the rider.

Mopeds were developed as an attempt to marry the concept of a bicycle and a motorcycle. Mopeds provide pedals for

riding like a normal bicycle, and a relatively small motor for riding like a motorcycle. However, mopeds are still constructed largely like a motorcycle, making them expensive, and difficult to pedal.

5 Motor scooters were developed as a further attempt at providing inexpensive motorized transportation. Motor scooters are limited, in that they are only suitable for short ranges, and provide no exercise to the rider.

10 While these units may be suitable for the particular purpose employed, or for general use, they would not be as suitable for the purposes of the present invention as disclosed hereafter.

SUMMARY OF THE INVENTION

It is an object of the invention to produce a motorized bicycle which allows the bicycle to be selectively pedaled,
5 or driven under power.

It is another object of the invention to produce a motorized bicycle which is simplistic in design, so as to be economical to manufacture. Accordingly, the motorized bicycle employs a horizontal shaft lawnmower engine, which is
10 linked to the rear wheel with a belt drive.

It is a further object of the invention to provide a motorized bicycle which is easy to operate. Accordingly, a hand operated throttle is provided to rev the engine, and a foot pedal operated clutch is provided to engage the engine
15 with the rear wheel.

The invention is a motorized bicycle, using a standard bicycle frame, having a front wheel and rear wheel attached thereto. Pedals are provided and are linked to the rear wheel with a drive train to allow the bicycle to operate with
20 pedal power. An internal combustion engine is linked to the drive train with a clutch, for selectively allowing the engine to be engaged to drive the bicycle. A throttle is provided for controlling the engine, and brakes are provided for slowing the wheels of the bicycle.

25 To the accomplishment of the above and related objects the invention may be embodied in the form illustrated in the accompanying drawings. Attention is called to the fact,

however, that the drawings are illustrative only. Variations are contemplated as being part of the invention, limited only by the scope of the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings, like elements are depicted by like reference numerals. The drawings are briefly described as follows.

FIG 1 is a diagrammatic perspective view of a motorized bicycle of the instant invention.

FIG 2 is a top plan view of the a tensioned belt which transmits power from the motor of the instant invention to a pulley which is integral with a rear wheel thereof.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

FIG 1 illustrates a motorized bicycle 10 of the instant invention. The motorized bicycle 10 comprises a bicycle frame assembly 12 having a front wheel 14 and rear wheel 16 rotateably secured thereto as is commonly known to those skilled in the art. The frame assembly 12 is of the type commonly used for ordinary pedal-powered bicycles.

However, in accordance with the present invention, as seen clearly in FIG 1, a horizontal shaft internal combustion engine 18 such as those commonly employed in lawn mowers and low powered devices of similar type is secured to a central region of the frame assembly 12. A motor pulley 20 extends from one side of the internal combustion engine 18. A wheel pulley 22 is affixed concentrically to the rear wheel 16 of the motorized bicycle 10, and extend from the side thereof, on said same side as that from which the motor pulley 20 extends.

As shown in FIG 2, drive belt 24 forms a continuous loop from the motor pulley 20 to the rear wheel pulley 22, transmitting power from the internal combustion engine 18 to the rear wheel 16, causing rotation thereof and causing the motorized bicycle 10 to be propelled laterally. In accordance with the principles of the present invention, the belt and pulley drive train can be substituted with a chain drive train.

A throttle mechanism 23, preferably located at a hand grip 26 such as that shown in FIG 1 allows the user to increase the speed of the internal combustion engine 18 and hence the speed of the motorized bicycle 10. It should be understood, however, that said throttle mechanism 23 can be located at any location upon the frame assembly 12 or related components thereof. In addition, brake levers may be provided at one or both of the hand grips 26, and may be used to control brakes located at the front and/or rear wheels.

A pedal assembly 28 having a pedal sprocket or pulley is also in communication with the drive belt 24, and thus also capable of transmitting power to the rear wheel 16 via the rear wheel pulley 22. A clutch pedal allows the user to selectively switch between manual pedal motion to propel the bicycle 10 and motorized propulsion thereof. A user may actuate said clutch pedal in order to engage the motor pulley 20 and cause the internal combustion engine 18 to propel the bicycle 10, or may actuate the clutch pedal in order to disengage the motor pulley 20 and alternatively engage the sprocket or pulley to allow the user to manually propel the motorized bicycle 10.

In conclusion, herein is presented a motorized bicycle which maintains the advantages of a bicycle, while providing the convenience of motorized power when desired. The invention is illustrated by example in the accompanying drawing figures. However, numerous variations are possible while adhering to the principles of the present invention.

Such variations are contemplated as being a part of the present invention.

CLAIMS

5 What is claimed is:

1. A motorized bicycle, comprising:

a bicycle frame;

a front wheel and rear wheel secured to the frame for rotary motion thereof;

10 a pair of pedals;

a drive train, linking the rear wheel to the pedal sprocket;

a horizontal shaft internal combustion engine, having a motor pulley, the pedals linked to the motor pulley for causing the motor pulley to rotate;

15

a clutch assembly, having a clutch pedal, the clutch assembly selectively linking engine to the motor pulley for selectively allowing the engine to rotate the rear wheel.

20 2. The motorized bicycle as recited in claim 1, further comprising at least one brake mechanism, and at least one brake lever in communication therewith for allowing a user to slow rotation of one of the front wheel and rear wheel.

25 3. The motorized bicycle as recited in claim 2, wherein the frame further has a pair of hand grips, wherein a throttle mechanism is located at one of the hand grips, and wherein the

throttle is in communication with the internal combustion engine.

ABSTRACT

A motorized bicycle, using a standard bicycle frame,
having a front wheel and rear wheel attached thereto. Pedals
5 are provided are are linked to the rear wheel with a drive
train to allow the bicycle to operate with pedal power. An
internal combustion engine is linked to the drive train with
a clutch, for selectively allowing the engine to be engaged
to drive the bicycle. A throttle is provided for controlling
10 the engine, and brakes are provided for slowing the wheels of
the bicycle.

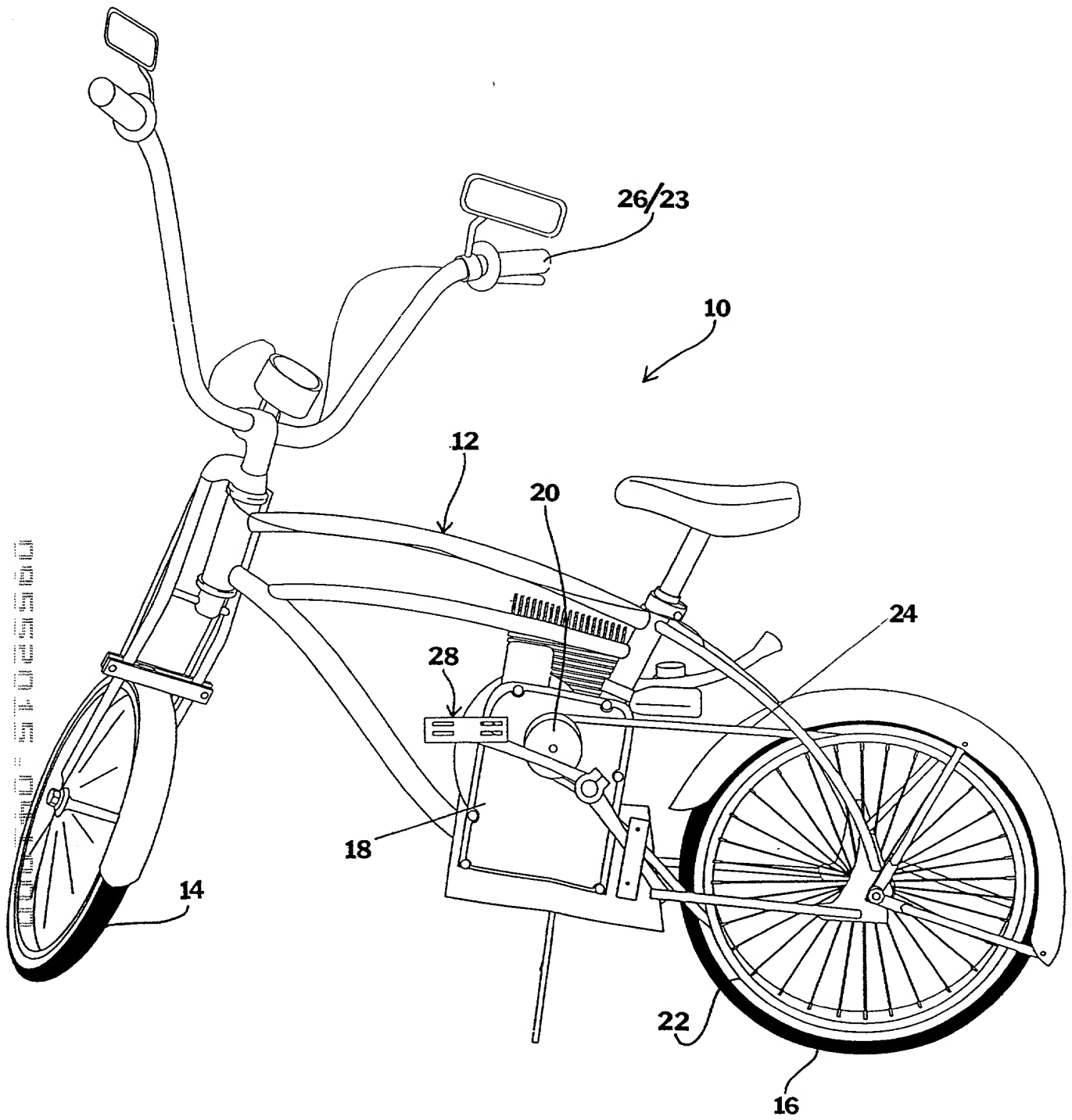


FIG.1

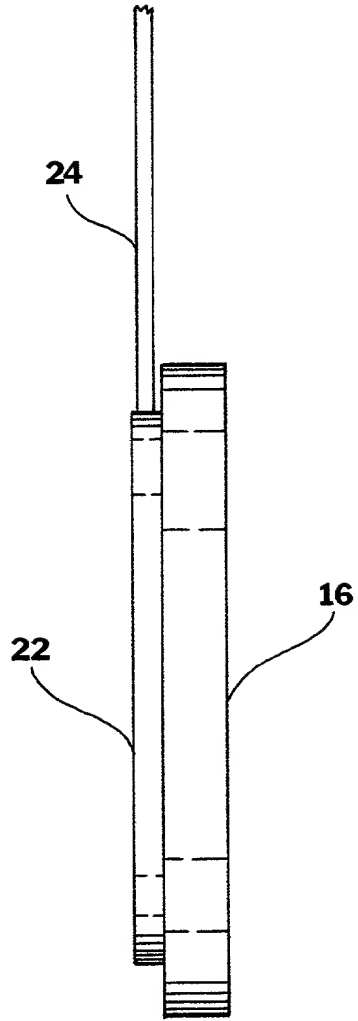


FIG.2

**DECLARATION
AND POWER OF ATTORNEY
Original Application**

As the below named inventor I declare that the information given herein is true, that I believe that I am the original, first and sole inventor of the invention entitled:

MOTORIZED BICYCLE

which is described and claimed in the attached specification;

that I do not know and do not believe that the same was ever known or used in the United States of America before my or our invention thereof or patented or described in any printed publication in any country before my or our invention thereof, or more than one year prior to this application, or in public use or on sale in the United States of America more than one year prior to this application, that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns more than twelve months prior to this application, that I acknowledge my duty to disclose information of which I am aware which is material to the patentability of this application in accordance with 37 CFR §1.56, and that no application for patent or inventor's certificate on this invention has been filed by me or my legal representatives or assigns in any country foreign to the United States of America except as identified below. I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

The applicant claim priority from provisional patent application serial no 60/130,393, filed in the United States Patent Office on April 19, 1999.

POWER OF ATTORNEY:

As a named inventor, I hereby appoint the following agent to prosecute this application, and transact all matters before the United States Patent and Trademark Office: Richard W. Goldstein, 2071 Clove Road, Staten Island, NY 10304, Reg. No. 36,527

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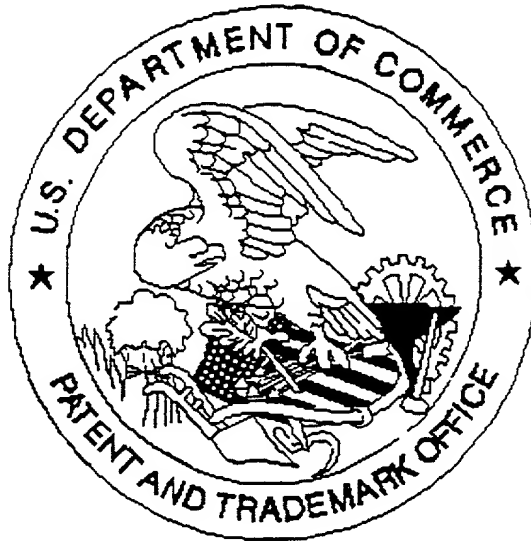
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I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

SIGNATURE OF INVENTOR 1: Michael B. Gold DATED: 4-18-2000

DATED: 4-18-2000

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